

CLAIMS

Please amend the claims as follows, where added material is underlined and material to be deleted is indicated by strikethrough font. This listing of claims will replace all prior versions and listings of claims in the application.

1-19 Cancelled

20. (Currently amended) A disposable balloon for use in a catheter system comprising an elongated catheter having a first outer diameter, a first proximal end and a first distal end, an elongated balloon carrier having a second proximal end, a second distal end and a second outer diameter, the second proximal end of the carrier and the first distal end of the catheter being configured to permit the first distal end of the catheter to matingly engage the second proximal end of the carrier, the second outer diameter of the balloon carrier being similar to the first outer diameter of the catheter, the balloon being formed from an expandable and resilient biocompatible material, the balloon comprising: (a) a lumen disposed between a third proximal end and a third distal end thereof, ~~and~~ (b) at least a third inside diameter; wherein the second diameter of the carrier and the third diameter of the balloon are configured to permit the balloon first to be slideably mounted onto the balloon carrier and second to be slideably moved from the carrier onto the catheter when the second proximal end of the carrier is matingly engaged with the first distal end of the catheter, and (c) proximal and distal removable sleeves for positioning, respectively, between the third inside diameter of the proximal and distal ends of the lumen and the second outer diameter of the carrier.

21. (Original) The balloon of claim 20, wherein the third inside diameter of the lumen is configured to engage the second outside diameter of the carrier near or at the proximal and distal ends of the balloon.

22. Cancelled

23. (Original) The balloon of claim 20, wherein the length between the proximal and distal ends

of the balloon is selected from the group consisting of ranging between about 5 mm and about 100 mm, ranging between about 10 mm and about 80 mm, ranging between about 20 mm and about 60 mm, ranging between about 35 mm and about 55 mm, and ranging between about 40 mm and about 50 mm.

24. (Original) The balloon of claim 20, wherein the balloon has a wall thickness selected from the group consisting of ranging between about 0.05 mm and about 1 mm, ranging between about 0.1 mm and about 0.5 mm, ranging between about 0.15 mm and about 0.35 mm, and ranging between about 0.2 mm and about 0.3 mm.

25. (Original) The balloon of claim 20, wherein the third diameter is selected from the group consisting of ranging between about 3 mm and about 15 mm, ranging between about 4 mm and about 12 mm, ranging between about 5 mm and about 10 mm, and ranging between about 6 mm and about 9 mm.

26. (Original) The balloon of claim 20, wherein the lumen further comprises a fourth inside diameter that is greater than the third inside diameter, at least portions of the lumen disposed near or at the third proximal end and the third distal end having the third inside diameter, at least portions of the lumen disposed between the third proximal end and the third distal end having the fourth inside diameter.

27. (Currently amended) The balloon of claim 26 20, wherein the fourth inside diameter is selected from the group consisting of between about 2 mm and about 20 mm, ranging between about 4 mm and about 15 mm, and ranging between about 6 mm and about 10 mm.

28. (Original) The balloon of claim 20, wherein the balloon comprises medical grade silicone.

29. (Original) The balloon of claim 20, wherein the balloon comprises a material having a tensile strength selected from the group consisting of ranging between about 200 psi and about 3000 psi, and ranging between about 1000 psi and about 2000 psi.

30. (Original) The balloon of claim 20, wherein the balloon comprises a material having a Shore durometer hardness selected from the group consisting of ranging between about 5 ShA and about 100 ShA, and ranging between about 30 ShA and about 70 ShA.

31. Cancelled

32. (Currently amended) A disposable balloon system for use with an elongated catheter comprising a first outer diameter, a first proximal end and a first distal end, the disposable balloon system comprising: (a) an elongated balloon carrier having a second proximal end, a second distal end and a second outer diameter, the second proximal end of the carrier and the first distal end of the catheter being configured to permit the first distal end of the catheter to matingly engage the second proximal end of the carrier, the second outer diameter of the balloon carrier being similar to the first outer diameter of the catheter; and (b) a disposable balloon formed from an expandable and resilient biocompatible material, the balloon having a lumen disposed between a third proximal end and a third distal end thereof, the lumen having at least a third inside diameter, the second diameter of the carrier and the third diameter of the balloon being configured to permit the balloon first to be slideably mounted onto the balloon carrier and second to be slideably moved from the carrier onto the catheter when the second proximal end of the carrier is matingly engaged with the first distal end of the catheter, and (c) proximal and distal removable sleeves for positioning, respectively, between the third inside diameter of the proximal and distal ends of the lumen and the second outer diameter of the carrier.

33. (Original) The balloon system of claim 32, wherein the third inside diameter of the lumen is configured to engage the second outside diameter of the carrier near or at the proximal and distal ends of the balloon.

34. Cancelled

35. (Original) The balloon system of claim 32, wherein the length between the proximal and

distal ends of the balloon is selected from the group consisting of ranging between about 5 mm and about 100 mm, ranging between about 10 mm and about 80 mm, ranging between about 20 mm and about 60 mm, ranging between about 35 mm and about 55 mm, and ranging between about 40 mm and about 50 mm.

36. (Original)The balloon system of claim 32, wherein the balloon has a wall thickness selected from the group consisting of ranging between about 0.05 mm and about 1 mm, ranging between about 0.1 mm and about 0.5 mm, ranging between about 0.15 mm and about 0.35 mm, and ranging between about 0.2 mm and about 0.3 mm.

37. (Original)The balloon system of claim 32, wherein the third diameter is selected from the group consisting of ranging between about 3 mm and about 15 mm, ranging between about 4 mm and about 12 mm, ranging between about 5 mm and about 10 mm, and ranging between about 6 mm and about 9 mm.

38. (Original)The balloon system of claim 32, wherein the lumen further comprises a fourth inside diameter that is greater than the third inside diameter, at least portions of the lumen disposed near or at the third proximal end and the third distal end having the third inside diameter, at least portions of the lumen disposed between the third proximal end and the third distal end having the fourth inside diameter.

39. (Original)The balloon system of claim 38, wherein the fourth inside diameter is selected from the group consisting of between about 2 mm and about 20 mm, ranging between about 4 mm and about 15 mm, and ranging between about 6 mm and about 10 mm.

40. (Original)The balloon system of claim 32, wherein the balloon comprises medical grade silicone.

41. (Original)The balloon system of claim 32, wherein the balloon comprises a material having a

tensile strength selected from the group consisting of ranging between about 200 psi and about 3000 psi, and ranging between about 1000 psi and about 2000 psi.

42. (Original) The balloon system of claim 32, wherein the balloon comprises a material having a Shore durometer hardness selected from the group consisting of ranging between about 5 ShA and about 100 ShA, and ranging between about 30 ShA and about 70 ShA.

43-45 Cancelled

46. (Currently amended) A method of mounting a disposable balloon on an elongated catheter using a disposable balloon system, the elongated catheter comprising a first outer diameter, a first proximal end and a first distal end, the disposable balloon system comprising an elongated balloon carrier having a second proximal end, a second distal end and a second outer diameter, the second proximal end of the carrier and the first distal end of the catheter being configured to permit the first distal end of the catheter to matingly engage the second proximal end of the carrier, the second outer diameter of the balloon carrier being similar to the first outer diameter of the catheter, and a disposable balloon formed from an expandable and resilient biocompatible material, the balloon having a lumen disposed between a third proximal end and a third distal end thereof, the lumen having at least a third inside diameter, the second diameter of the carrier and the third diameter of the balloon being configured to permit the balloon first to be slideably mounted onto the balloon carrier and second to be slideably moved from the carrier onto the catheter when the second proximal end of the carrier is matingly engaged with the first distal end of the catheter, the method comprising: (a) providing the elongated catheter; (b) providing the disposable balloon system; (c) engaging the first distal end of the catheter against the second proximal end of the carrier, and (d) sliding the balloon onto the catheter from the carrier, and (e) disposing proximal and distal sleeves beneath the proximal and distal ends of the balloon.

47. Cancelled

48. (Currently amended) The method of claim ~~46~~ 47, further comprising removing the sleeves after the balloon has been mounted on the catheter.